



T9005 - T9015 - T9025 - T9035



# T9000 Series

NEW

New grades for turning operations  
With “Double-Bridge” into a new dimension



# T9000 Series

**NEW**

## New grades for turning operations With “Double-Bridge” into a new dimension

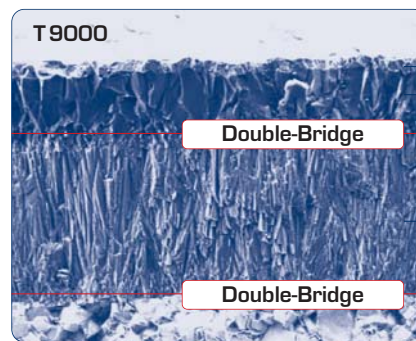
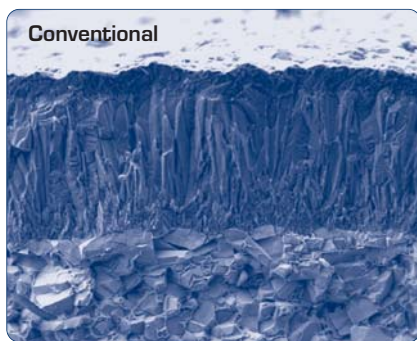
### Features

To meet the continuously growing demands of modern tool concepts as to economic efficiency and productivity, Tungaloy designed the new T9000 series. The result of our intensive research and development is a modern cutting grade series, which stands for increased tool life

at higher cutting speeds in machining operations of steel. Compared to traditional cutting materials, the new MT-CVD coated substrate has a unique design of each single coating layer. The patented new “Double-Bridge” coating technology stands for extremely increased adhesion

of each single layer. Thus thicker coatings can be applied without weakening the adhesion between each single layer. These characteristics grant significantly increased wear resistance, thus allowing for higher cutting conditions.

### “Double-Bridge” coating system



- TiN** smooth surface for low friction
- Al<sub>2</sub>O<sub>3</sub>** layer 2.5 x thicker for extreme heat resistance
- TiCN** fine grain columnar layer for protection against flank wear and crater wear

**NEW**

### “Double-Bridge” – Patented coating technology

#### Market demands

- high cutting speeds and high feed rates
- process stability
- highly economic

#### Improved performance

- crater wear resistance
- flank wear resistance
- plastic deformation resistance

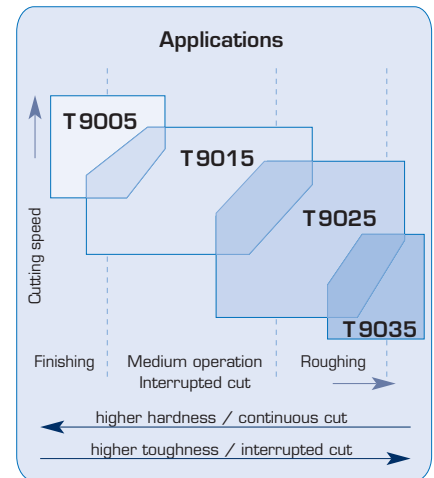
#### T9000 Series

- increased wear resistance
- improved adhesion of each layer
- highly economic

# T 9000 Series





## Grade

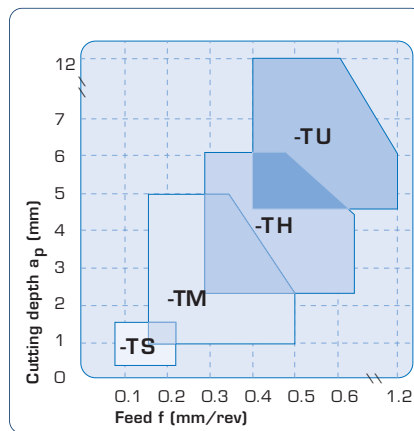
Grade			Features and applications
T9005	MT-CVD	P05 P10	extremely wear resistant grade for high speed finish to rough turning of steel
T9015	MT-CVD	P10 P20	universal grade for medium turning of steel at medium speed
T9025	MT-CVD	P20 P30	universal grade for medium to rough turning of steel at medium speed
T9035	MT-CVD	P30 P40	tough grade for rough turning of steel at medium to low speed












## Chipbreaker

### Basic chipbreaker Negative




-  **-TS** Finishing
-  **-TM** Medium operation
-  **-TH** Roughing
-  **-TU** Heavy roughing  
-single sided

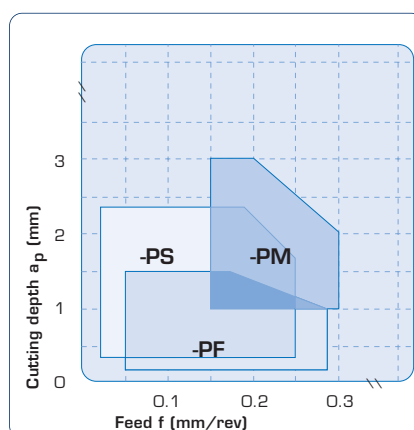


### Complementary chipbreaker Negative



-  **-CB** Finishing
-  **-AS** Finishing to medium operation
-  **-ASW (Wiper)** Medium operation
-  **-37** Medium operation
-  **-S** Medium operation
-  **-DM** Roughing
-  **-57** Heavy roughing  
-single sided
-  **-TR** Heavy roughing  
-single sided
-  **-65** Heavy roughing  
-single sided

### Basic chipbreaker Positive

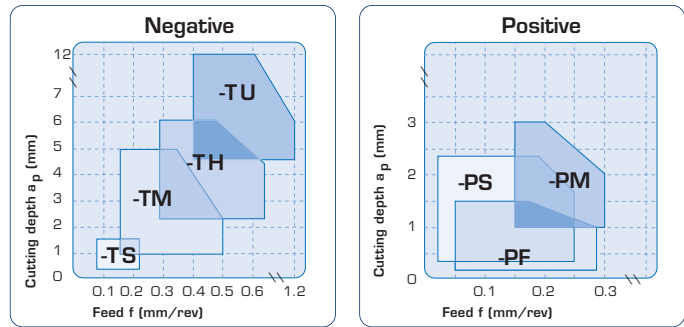
-  **-PF** Finishing
-  **-PS** Finishing to medium operation
-  **-PM** Medium operation



### Complementary chipbreaker Positive

-  **-23** Finishing to medium operation
-  **-24** Medium operation

# T9000 Series Chipbreaker Applications



## Cutting conditions

Work materials	Hardness	Cutting conditions	Cutting speed Vc (m/min)			
			T9005	T9015	T9025	T9035
Mild steels St37-3, C15, Ck45 etc.	< HB150	●	200 - 300 - 400	180 - 270 - 350	150 - 220 - 300	-
		●	150 - 250 - 350	120 - 200 - 300	100 - 180 - 250	80 - 150 - 200
		●	-	100 - 150 - 200	100 - 150 - 200	80 - 120 - 150
Low alloy steels St52-3, 16MnCr5, 42CrMo4 etc.	HB150 - 300	●	180 - 250 - 350	150 - 220 - 300	120 - 180 - 250	-
		●	120 - 200 - 300	100 - 180 - 250	80 - 150 - 200	80 - 120 - 180
		●	-	80 - 120 - 180	80 - 120 - 180	50 - 100 - 150
High alloy steels X210Cr12, X210Cr12G etc.	HB250 - 400	●	150 - 220 - 300	120 - 180 - 250	100 - 150 - 180	-
		●	100 - 150 - 200	80 - 120 - 180	80 - 100 - 150	50 - 100 - 120
		●	-	80 - 100 - 120	80 - 100 - 120	50 - 80 - 100

● Light cutting    ● Medium cutting    ● Heavy cutting









## Specifications: Negative inserts

● Standard stock in Europe    ○ Standard stock in Japan

Application	Chipbreaker	Shape	Cutting depth ap (mm)	Feed f (mm/rev)	Item code	Stock			
						T9005	T9015	T9025	T9035
Finishing	-TS		0.3 - 1.0 - 1.5	0.08 - 0.15 - 0.2	CNMG120404-TS	●	●	●	○
					CNMG120408-TS	●	●	●	○
					CNMG120412-TS	○	●	○	○
Finishing	-CB		0.3 - 1.5 - 2.5	0.1 - 0.15 - 0.25	CNMG090304-CB		●		
					CNMG090308-CB		●		
Finishing to medium operation	-AS		0.5 - 1.0 - 2.0	0.2 - 0.4 - 0.6	CNMG120404-AS	●	●	●	●
					CNMG120408-AS	●	●	●	●
					CNMG120412-AS	●	●	●	●
Medium operation	-ASW (Wiper)		0.5 - 1.0 - 2.0	0.3 - 0.5 - 0.6	CNMG120408-ASW	●	●	●	
					CNMG120412-ASW	●	●	●	
Medium operation	-TM		1.0 - 3.0 - 5.0	0.2 - 0.3 - 0.5	CNMG090304-TM		○	○	
					CNMG090308-TM		○	○	
					CNMG120404-TM	●	●	●	●
					CNMG120408-TM	●	●	●	●
					CNMG120412-TM	●	●	●	●
					CNMG120416-TM	●	●	●	●







# T 9000 Series

● Standard stock in Europe ○ Standard stock in Japan

Application	Chipbreaker	Shape	Cutting depth ap (mm)	Feed f (mm/rev)	Item code	Stock			
						T9005	T9015	T9025	T9035
Medium operation	<b>-TM</b>		1.0 - 3.0 - 5.0	0.2 - 0.3 - 0.5	CNMG160612-TM		○	○	
					CNMG190608-TM	○		○	
					CNMG190612-TM	○		○	
Medium operation	<b>-37</b>		1.0 - 2.0 - 4.0	0.2 - 0.3 - 0.4	CNMG120404-37		●	●	
					CNMG120408-37		●	●	
					CNMG120412-37		●	●	
Medium operation	<b>-S</b>		1.0 - 3.0 - 4.0	0.2 - 0.3 - 0.4	CNMG120404L/R-S			●	●
					CNMG120408L/R-S			●	●
Roughing	<b>-DM</b>		1.0 - 3.0 - 5.0	0.2 - 0.3 - 0.5	CNMG120404-DM	●	●	●	●
					CNMG120408-DM	●	●	●	●
					CNMG120412-DM	●	●	●	●
					CNMG120416-DM	●	●	●	●
Roughing	<b>-TH</b>		3.0 - 4.0 - 6.0	0.3 - 0.4 - 0.6	CNMG120408-TH	●	●	●	●
					CNMG120412-TH	●	●	●	●
					CNMG120416-TH	●	●	●	●
					CNMG160612-TH	●	●	●	●
					CNMG160616-TH	●	●	●	●
					CNMG190612-TH	●	●	●	●
					CNMG190616-TH	●	●	●	●
Heavy roughing -single sided	<b>-57</b>		2.0 - 5.0 - 8.0	0.4 - 0.6 - 0.8	CNMM120404-57		●	●	
					CNMM120408-57		●	●	
					CNMM120412-57		●	●	
					CNMM160608-57		●	●	
					CNMM160612-57		●	●	
					CNMM160616-57		●	●	
					CNMM190612-57		●	●	
					CNMM190616-57		●	●	
					CNMM190624-57		●	●	
Heavy roughing -single sided	<b>-TU</b>		3.0 - 5.0 - 8.0	0.5 - 0.8 - 1.0	CNMM190612-TU	●	●	●	●
					CNMM190616-TU	●	●	●	●
					CNMM190624-TU	●	●	●	●
			8.0 - 12.0 - 17.0	0.8 - 1.0 - 1.2	CNMM250724-TU	●	●	●	●
					CNMM250924-TU	●	●	●	●
Heavy roughing -single sided	<b>-TR</b>		3.0 - 4.0 - 6.0	0.3 - 0.4 - 0.6	CNMM120408-TR		●	●	
					CNMM120412-TR		●	●	








# T9000 Series

● Standard stock in Europe ○ Standard stock in Japan

Application	Chipbreaker	Shape	Cutting depth ap (mm)	Feed f (mm/rev)	Item code	Stock					
						T9005	T9015	T9025	T9035		
Heavy roughing -single sided	<b>-TR</b>		3.0 - 4.0 - 6.0	0.3 - 0.4 - 0.6	CNMM160612-TR		●	●			
					CNMM190612-TR		●	●			
							CNMM190616-TR		●	●	
			5.0 - 10.0 - 17.0	0.6 - 0.8 - 1.2	CNMM250724-TR		●	●			
					CNMM250924-TR		●	●			
Heavy roughing -single sided	<b>-65</b>		3.0 - 5.0 - 8.0	0.5 - 0.8 - 1.0	CNMM120408-65			○			
					CNMM120412-65			○			
					CNMM160608-65			○			
					CNMM160612-65			●	●		
							CNMM160616-65			●	●
							CNMM190612-65		●	●	
							CNMM190616-65		●	●	
							CNMM190624-65		●	●	
			8.0 - 12.0 - 17.0	0.8 - 1.0 - 1.2	CNMM250924-65		●	●			
			Finishing	<b>-TS</b>		0.3 - 1.0 - 1.5	0.08 - 0.15 - 0.2	DNMG150404-TS	○	○	○
DNMG150408-TS	○	●						○	○		
DNMG150412-TS	○	○						○	○		
							DNMG150604-TS	●	●	●	○
							DNMG150608-TS	●	●	●	○
							DNMG150612-TS	○	○	○	○
Finishing	<b>-CB</b>		0.3 - 1.5 - 2.5	0.1 - 0.15 - 0.25	DNMG110404-CB		●				
					DNMG110408-CB		●				
Finishing to medium operation	<b>-AS</b>		0.5 - 1.0 - 2.0	0.2 - 0.4 - 0.6	DNMG150404-AS	○	○	○	○		
					DNMG150408-AS	○	○	○	○		
					DNMG150412-AS	○	○	○	○		
							DNMG150604-AS	●	●	●	●
							DNMG150608-AS	●	●	●	●
							DNMG150612-AS	●	●	●	●
Medium operation	<b>-TM</b>		1.0 - 3.0 - 5.0	0.2 - 0.3 - 0.5	DNMG110404-TM		●	●			
					DNMG110408-TM		●	●			
							DNMG150404-TM	○	○	○	○
							DNMG150408-TM	○	○	○	○
							DNMG150412-TM	○	○	○	○
							DNMG150416-TM		○	○	○
							DNMG150604-TM	●	●	●	●








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Application	Chipbreaker	Shape	Cutting depth ap (mm)	Feed f (mm/rev)	Item code	Stock			
						T9005	T9015	T9025	T9035
Medium operation	<b>-TM</b>		1.0 - 3.0 - 5.0	0.2 - 0.3 - 0.5	DNMG150608-TM	●	●	●	●
					DNMG150612-TM	●	●	●	●
					DNMG150616-TM	●	●	●	●
Medium operation	<b>-37</b>		1.0 - 2.0 - 4.0	0.2 - 0.3 - 0.4	DNMG150404-37		○		
					DNMG150408-37		○		
					DNMG150412-37		○		
					DNMG150604-37		●	●	
					DNMG150608-37		●	●	
					DNMG150612-37		●	●	
Medium operation	<b>-S</b>		1.0 - 3.0 - 4.0	0.2 - 0.3 - 0.4	DNMG150404L/R-S			○	○
					DNMG150408L/R-S			○	○
					DNMG150604L/R-S			●	●
					DNMG150608L/R-S			●	●
Roughing	<b>-DM</b>		1.0 - 3.0 - 5.0	0.2 - 0.3 - 0.5	DNMG150404-DM	○	○	○	○
					DNMG150408-DM	○	○	○	○
					DNMG150412-DM	○	○	○	○
					DNMG150416-DM	○	○	○	○
					DNMG150604-DM	●	●	●	●
					DNMG150608-DM	●	●	●	●
					DNMG150612-DM	●	●	●	●
					DNMG150616-DM	●	●	●	●
Roughing	<b>-TH</b>		3.0 - 4.0 - 6.0	0.3 - 0.4 - 0.6	DNMG150408-TH	○	○	○	○
					DNMG150412-TH	○	○	○	○
					DNMG150416-TH	○	○	○	○
					DNMG150608-TH	●	●	●	●
					DNMG150612-TH	●	●	●	●
					DNMG150616-TH	●	●	●	●
Heavy roughing -single sided	<b>-57</b>		2.0 - 5.0 - 8.0	0.4 - 0.6 - 0.8	DNMM150408-57		○	○	
					DNMM150412-57		○	○	
					DNMM150608-57		●	●	
					DNMM150612-57		●	●	
Finishing	<b>-TS</b>		0.3 - 1.0 - 1.5	0.08 - 0.15 - 0.2	SNMG120404-TS	○	○	○	○
					SNMG120408-TS	●	●	○	○
					SNMG120412-TS	○	●	○	○

# T9000 Series










● Standard stock in Europe ○ Standard stock in Japan

Application	Chipbreaker	Shape	Cutting depth ap (mm)	Feed f (mm/rev)	Item code	Stock			
						T9005	T9015	T9025	T9035
Finishing to medium operation	<b>-AS</b>		0.5 - 1.0 - 2.0	0.2 - 0.3 - 0.4	SNMG120404-AS	○	○	○	
					SNMG120408-AS	○	●	●	○
					SNMG120412-AS	○	●	●	○
Medium operation	<b>-TM</b>		1.0 - 3.0 - 5.0	0.2 - 0.3 - 0.5	SNMG090304-TM		○	○	
					SNMG090308-TM		○	○	
					SNMG120404-TM	●	●	●	●
					SNMG120408-TM	●	●	●	●
					SNMG120412-TM	●	●	●	●
					SNMG120416-TM	●	●	●	●
					SNMG150608-TM		○		
					SNMG150612-TM		○		
Medium operation	<b>-37</b>		1.0 - 2.0 - 4.0	0.2 - 0.3 - 0.4	SNMG120404-37		●	●	
					SNMG120408-37		●	●	
					SNMG120412-37		●	●	
Medium operation	<b>-S</b>		1.0 - 3.0 - 4.0	0.2 - 0.3 - 0.4	SNMG120404L/R-S			●	●
					SNMG120408L/R-S			●	●
					SNMG120412L/R-S			○	○
Roughing	<b>-DM</b>		1.0 - 3.0 - 5.0	0.2 - 0.3 - 0.5	SNMG120404-DM	●	●	●	●
					SNMG120408-DM	●	●	●	●
					SNMG120412-DM	●	●	●	●
Roughing	<b>-TH</b>		3.0 - 4.0 - 6.0	0.3 - 0.4 - 0.6	SNMG120408-TH	●	●	●	●
					SNMG120412-TH	●	●	●	●
					SNMG150612-TH	●	●	●	●
					SNMG150616-TH	●	●	●	●
					SNMG190612-TH	●	●	●	●
					SNMG190616-TH	●	●	●	●
Heavy roughing -single sided	<b>-57</b>		2.0 - 5.0 - 8.0	0.4 - 0.6 - 0.8	SNMM120408-57		●	●	
					SNMM120412-57		●	●	
					SNMM150608-57		●	●	
					SNMM150612-57		●	●	
					SNMM150616-57		●	●	
					SNMM190612-57		●	●	
SNMM190616-57		●	●						









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						T9005	T9015	T9025	T9035
Heavy roughing -single sided	<b>-57</b>		2.0 - 5.0 - 8.0	0.4 - 0.6 - 0.8	SNMM190624-57		●	●	
			5.0 - 10.0 - 17.0	0.6 - 0.8 - 1.2	SNMM250724-57		●	●	
Heavy roughing -single sided	<b>-TU</b>		3.0 - 5.0 - 8.0	0.5 - 0.8 - 1.0	SNMM190612-TU	●	●	●	●
					SNMM190616-TU	●	●	●	●
			8.0 - 12.0 - 17.0	0.8 - 1.0 - 1.2	SNMM190624-TU	●	●	●	●
					SNMM250724-TU	●	●	●	●
Heavy roughing -single sided	<b>-TR</b>		2.0 - 5.0 - 8.0	0.4 - 0.6 - 0.8	SNMM250924-TU	○		●	
					SNMM310924-TU	○	○	○	○
			5.0 - 10.0 - 17.0	0.6 - 0.8 - 1.2	SNMM190612-TR		●	●	
					SNMM190616-TR		●	●	
Heavy roughing -single sided	<b>-65</b>		3.0 - 5.0 - 8.0	0.5 - 0.8 - 1.0	SNMM190624-TR		●	●	
					SNMM250724-TR		●	●	
			8.0 - 12.0 - 17.0	0.8 - 1.0 - 1.2	SNMM250924-TR		●	●	
					SNMM120408-65			●	
Heavy roughing -single sided	<b>-65</b>		3.0 - 5.0 - 8.0	0.5 - 0.8 - 1.0	SNMM120412-65			●	
					SNMM190612-65		●	●	
					SNMM190616-65		●	●	
			8.0 - 12.0 - 17.0	0.8 - 1.0 - 1.2	SNMM190624-65		●	●	
					SNMM250724-65		●	●	
					SNMM250732-65			●	
SNMM250924-65			●						
SNMM310916-65			●						
SNMM310924-65			●						
Finishing	<b>-TS</b>		0.3 - 1.0 - 1.5	0.08 - 0.15 - 0.2	TNMG160404-TS	●	●	●	○
					TNMG160408-TS	●	●	●	○
					TNMG160412-TS	●	●	○	○
Finishing	<b>-CB</b>		0.3 - 1.5 - 2.5	0.1 - 0.15 - 0.25	TNMG110304-CB		●		
					TNMG110308-CB		●		
Finishing to medium operation	<b>-AS</b>		0.5 - 1.0 - 2.0	0.2 - 0.4 - 0.6	TNMG160404-AS	○	●	●	○
					TNMG160408-AS	●	●	●	●
					TNMG160412-AS	●	●	●	●
Medium operation	<b>-TM</b>		1.0 - 3.0 - 5.0	0.2 - 0.3 - 0.5	TNMG110304-TM		○	○	
					TNMG110308-TM		○	○	
					TNMG160404-TM	●	●	●	●
					TNMG160408-TM	●	●	●	●










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Application	Chipbreaker	Shape	Cutting depth ap (mm)	Feed f (mm/rev)	Item code	Stock			
						T9005	T9015	T9025	T9035
Medium operation	<b>-TM</b>		1.0 - 3.0 - 5.0	0.2 - 0.3 - 0.5	TNMG160412-TM	●	●	●	●
					TNMG220408-TM	○	○	○	○
					TNMG220412-TM	○	○	○	○
					TNMG220416-TM		○	○	
Medium operation	<b>-37</b>		1.0 - 2.0 - 4.0	0.2 - 0.3 - 0.4	TNMG160404-37		●	●	
					TNMG160408-37		●	●	
					TNMG160412-37		●	●	
					TNMG220404-37		●	●	
					TNMG220408-37		●	●	
					TNMG220412-37		●	●	
Medium operation	<b>-S</b>		1.0 - 3.0 - 4.0	0.2 - 0.3 - 0.4	TNMG160404L/R-S			●	●
					TNMG160408L/R-S			●	●
					TNMG220404L/R-S			●	●
					TNMG220408L/R-S			●	●
Roughing	<b>-DM</b>		1.0 - 3.0 - 5.0	0.2 - 0.3 - 0.5	TNMG160404-DM	●	●	●	●
					TNMG160408-DM	●	●	●	●
					TNMG160412-DM	●	●	●	●
					TNMG220408-DM	○	○	○	○
					TNMG220412-DM	○	○	○	○
					TNMG220416-DM		○		○
Roughing	<b>-TH</b>		2.0 - 4.0 - 6.0	0.3 - 0.4 - 0.6	TNMG220408-TH	○	○	○	○
					TNMG220412-TH	○	○	○	○
Heavy roughing -single sided	<b>-57</b>		2.0 - 5.0 - 8.0	0.4 - 0.6 - 0.8	TNMM160408-57		●	●	
					TNMM160412-57		●	●	
					TNMM220408-57		●	●	
					TNMM220412-57		●	●	
Finishing	<b>-TS</b>		0.3 - 1.0 - 1.5	0.08 - 0.15 - 0.2	VNMG160404-TS	●	●	●	○
					VNMG160408-TS	●	●	●	○
					VNMG160412-TS	○	○	○	○
Medium operation	<b>-TM</b>		1.0 - 3.0 - 5.0	0.2 - 0.3 - 0.5	VNMG160404-TM	●	●	●	●
					VNMG160408-TM	●	●	●	●
					VNMG160412-TM	●	●	●	●
Roughing	<b>-DM</b>		1.0 - 3.0 - 5.0	0.2 - 0.3 - 0.5	VNMG160404-DM	●	●	●	●
					VNMG160408-DM	●	●	●	●
					VNMG160412-DM	●	●	●	●

# T 9000 Series








● Standard stock in Europe ○ Standard stock in Japan

Application	Chipbreaker	Shape	Cutting depth ap (mm)	Feed f (mm/rev)	Item code	Stock			
						T9005	T9015	T9025	T9035
Finishing	<b>-TS</b>		0.3 - 1.0 - 1.5	0.08 - 0.15 - 0.2	WNMG080404-TS	●	●	●	○
					WNMG080408-TS	●	●	●	○
					WNMG080412-TS	○	○	○	○
Finishing	<b>-CB</b>		0.3 - 1.5 - 2.5	0.1 - 0.15 - 0.25	WNMG060404-CB			●	
					WNMG060408-CB			●	
Finishing to medium operation	<b>-AS</b>		0.5 - 1.0 - 2.0	0.2 - 0.4 - 0.6	WNMG080404-AS	●	●	●	●
					WNMG080408-AS	●	●	●	●
					WNMG080412-AS	●	●	●	●
Medium operation	<b>-ASW (Wiper)</b>		0.5 - 1.0 - 2.0	0.3 - 0.5 - 0.6	WNMG080408-ASW	●	●	●	
					WNMG080412-ASW	●	●	●	
Medium operation	<b>-TM</b>		1.0 - 3.0 - 5.0	0.2 - 0.3 - 0.5	WNMG060404-TM	●	●	●	
					WNMG060408-TM	●	●	●	●
					WNMG060412-TM	●	●	●	●
					WNMG080404-TM	●	●	●	●
					WNMG080408-TM	●	●	●	●
					WNMG080412-TM	●	●	●	●
Medium operation	<b>-37</b>		1.0 - 2.0 - 4.0	0.2 - 0.3 - 0.4	WNMG080404-37		●	●	
					WNMG080408-37		●	●	
					WNMG080412-37		●	●	
Roughing	<b>-DM</b>		1.0 - 3.0 - 5.0	0.2 - 0.3 - 0.5	WNMG080404-DM	●	●	●	●
					WNMG080408-DM	●	●	●	●
					WNMG080412-DM	●	●	●	●
Roughing	<b>-TH</b>		3.0 - 4.0 - 6.0	0.3 - 0.4 - 0.6	WNMG080408-TH	●	●	●	●
					WNMG080412-TH	●	●	●	●
					WNMG080416-TH	●	●	●	●
					WNMG100612-TH		○	●	
					WNMG100616-TH		○	○	
Heavy roughing -single sided	<b>-57</b>		2.0 - 5.0 - 8.0	0.4 - 0.6 - 0.8	WNMM080408-57		●	●	
					WNMM080412-57		●	●	
					WNMM100612-57		○	○	
					WNMM100616-57		○	○	
					WNMM130616-57		○	○	
					WNMM130624-57		○	○	

# T9000 Series









## Specifications: Positive inserts

● Standard stock in Europe ○ Standard stock in Japan

Application	Chipbreaker	Shape	Cutting depth ap (mm)	Feed f (mm/rev)	Item code	Stock			
						T9005	T9015	T9025	T9035
Finishing	-PF		0.3 - 0.8 - 1.5	0.05 - 0.12 - 0.25	CCMT060202-PF		●	●	
					CCMT060204-PF		●	●	
					CCMT060208-PF		●	●	
					CCMT09T302-PF		●	●	
					CCMT09T304-PF		●	●	
					CCMT09T308-PF		●	●	
Finishing to medium operation	-PS		0.3 - 1.0 - 2.0	0.08 - 0.15 - 0.3	CCMT060202-PS		●	●	
					CCMT060204-PS		●	●	
					CCMT060208-PS		●	●	
					CCMT09T302-PS		●	●	
					CCMT09T304-PS		●	●	
					CCMT09T308-PS		●	●	
Medium operation	-24		1.0 - 1.5 - 3.0	0.08 - 0.15 - 0.3	CCMT060202-24		●	●	
					CCMT060204-24		●	●	
					CCMT060208-24		●	●	
					CCMT09T302-24		●	●	
					CCMT09T304-24		●	●	
					CCMT09T308-24		●	●	
Medium operation	-PM		1.0 - 1.5 - 2.5	0.15 - 0.2 - 0.3	CCMT060204-PM		●	●	
					CCMT060208-PM		●	●	
					CCMT09T304-PM		●	●	
					CCMT09T308-PM		●	●	
Finishing	-PF		0.3 - 0.8 - 1.5	0.05 - 0.12 - 0.25	CPMT090302-PF		●	●	
					CPMT090304-PF		●	●	
					CPMT090308-PF		●	●	
Finishing to medium operation	-PS		0.3 - 1.0 - 2.0	0.08 - 0.15 - 0.3	CPMT060202-PS		●	●	
					CPMT060204-PS		●	●	
					CPMT090304-PS		●	●	
Medium operation	-24		1.0 - 1.5 - 3.0	0.08 - 0.15 - 0.3	CPMT090308-PS		●	●	
					CPMT060204-24			●	
					CPMT090302-24		●	●	
					CPMT090304-24		●	●	
						●	●		
						●	●		
						●	●		









# T 9000 Series

● Standard stock in Europe ○ Standard stock in Japan

Application	Chipbreaker	Shape	Cutting depth ap (mm)	Feed f (mm/rev)	Item code	Stock			
						T9005	T9015	T9025	T9035
Medium operation	<b>-24</b>		1.0 - 1.5 - 3.0	0.08 - 0.15 - 0.3	CPMT120408-24		○	○	
					CPMT120412-24		○	○	
					CPMT160508-24		○	○	
					CPMT160512-24		○	○	
Medium operation	<b>-PM</b>		1.0 - 1.5 - 2.5	0.15 - 0.2 - 0.3	CPMT090304-PM		●	●	
					CPMT090308-PM		●	●	
Finishing	<b>-PF</b>		0.3 - 0.8 - 1.5	0.05 - 0.12 - 0.25	DCMT070202-PF		●	●	
					DCMT070204-PF		●	●	
					DCMT070208-PF		●	●	
					DCMT11T302-PF		●	●	
					DCMT11T304-PF		●	●	
					DCMT11T308-PF		●	●	
Finishing to medium operation	<b>-PS</b>		0.3 - 1.0 - 2.0	0.08 - 0.15 - 0.3	DCMT070202-PS		●	●	
					DCMT070204-PS		●	●	
					DCMT070208-PS		●	●	
					DCMT11T302-PS		●	●	
					DCMT11T304-PS		●	●	
					DCMT11T308-PS		●	●	
Medium operation	<b>-24</b>		1.0 - 1.5 - 3.0	0.08 - 0.15 - 0.3	DCMT070202-24		●	●	
					DCMT070204-24		●	●	
					DCMT070208-24		●	●	
					DCMT11T302-24		●	●	
					DCMT11T304-24		●	●	
					DCMT11T308-24		●	●	
Medium operation	<b>-PM</b>		1.0 - 1.5 - 2.5	0.15 - 0.2 - 0.3	DCMT070204-PM		●	●	
					DCMT070208-PM		●	●	
					DCMT11T304-PM		●	●	
					DCMT11T308-PM		●	●	
					DCMT11T312-PM		●	●	
Finishing	<b>-PF</b>		0.3 - 0.8 - 1.5	0.05 - 0.12 - 0.25	SCMT09T304-PF		●	●	
					SCMT09T308-PF		●	●	
Finishing to medium operation	<b>-PS</b>		0.3 - 1.0 - 2.0	0.08 - 0.15 - 0.3	SCMT09T304-PS		●	●	
					SCMT09T308-PS		●	●	







# T9000 Series

● Standard stock in Europe ○ Standard stock in Japan

Application	Chipbreaker	Shape	Cutting depth ap (mm)	Feed f (mm/rev)	Item code	Stock			
						T9005	T9015	T9025	T9035
Finishing to medium operation	<b>-PS</b>		0.3 - 1.0 - 2.0	0.08 - 0.15 - 0.3	SCMT120404-PS		●	●	
					SCMT120408-PS		●	●	
Medium operation	<b>-24</b>		1.0 - 1.5 - 3.0	0.08 - 0.15 - 0.3	SCMT070204-24		●	●	
					SCMT09T302-24		●	●	
					SCMT09T304-24		●	●	
					SCMT09T308-24		●	●	
					SCMT120404-24		●	●	
					SCMT120408-24		●	●	
Medium operation	<b>-PM</b>		1.0 - 1.5 - 2.5	0.15 - 0.2 - 0.3	SCMT09T304-PM		●	●	
					SCMT09T308-PM		●	●	
					SCMT120408-PM		●	●	
Finishing to medium operation	<b>-23</b>		0.3 - 1.0 - 2.0	0.08 - 0.2 - 0.3	SPMR090304-23		●	●	
					SPMR090308-23		●	●	
					SPMR120304-23		●	●	
					SPMR120308-23		●	●	
Finishing to medium operation	<b>-PS</b>		0.3 - 1.0 - 2.0	0.08 - 0.15 - 0.3	SPMT090304-PS		○	○	
					SPMT090308-PS		○	○	
					SPMT120404-PS		○	○	
					SPMT120408-PS		○	○	
Medium operation	<b>-24</b>		1.0 - 1.5 - 3.0	0.08 - 0.15 - 0.3	SPMT090304-24		○	○	
					SPMT090308-24		○	○	
					SPMT120404-24		○	○	
					SPMT120408-24		○	○	
Finishing to medium operation	<b>-PS</b>		0.3 - 1.0 - 2.0	0.08 - 0.15 - 0.3	TCMT110202-PS		●	●	
					TCMT110204-PS		●	●	
					TCMT110208-PS		●	●	
					TCMT16T304-PS		●	●	
					TCMT16T308-PS		●	●	
Medium operation	<b>-24</b>		1.0 - 1.5 - 3.0	0.08 - 0.15 - 0.3	TCMT090202-24		●	●	
					TCMT090204-24		●	●	
					TCMT110202-24		●	●	
					TCMT110204-24		●	●	
					TCMT110208-24		●	●	








# T 9000 Series

● Standard stock in Europe ○ Standard stock in Japan

Application	Chipbreaker	Shape	Cutting depth ap (mm)	Feed f (mm/rev)	Item code	Stock			
						T9005	T9015	T9025	T9035
Medium operation	<b>-24</b>		1.0 - 1.5 - 3.0	0.08 - 0.15 - 0.3	TCMT16T304-24		●	●	
					TCMT16T308-24		●	●	
Medium operation	<b>-PM</b>		1.0 - 1.5 - 2.5	0.15 - 0.2 - 0.3	TCMT110204-PM		●	●	
					TCMT110208-PM		●	●	
					TCMT16T304-PM		●	●	
					TCMT16T308-PM		●	●	
					TCMT16T312-PM		●	●	
Finishing to medium operation	<b>-23</b>		0.5 - 1.0 - 2.0	0.08 - 0.2 - 0.3	TPMR090202-23			●	
					TPMR090204-23			●	
					TPMR110304-23		●	●	
					TPMR110308-23		●	●	
					TPMR160304-23		●	●	
					TPMR160308-23		●	●	
Medium operation	<b>-24</b>		0.5 - 1.5 - 3.0	0.08 - 0.2 - 0.3	TPMR090202-24			●	
					TPMR090204-24			●	
					TPMR110304-24		●	●	
					TPMR110308-24		●	●	
					TPMR160304-24		●	●	
					TPMR160308-24		●	●	
Finishing	<b>-PF</b>		0.3 - 0.8 - 1.5	0.05 - 0.12 - 0.25	TPMT110204-PF		●	●	
					TPMT110208-PF		●	●	
					TPMT130304-PF		●	●	
					TPMT130308-PF		●	●	
					TPMT16T304-PF		●	●	
					TPMT16T308-PF		●	●	
Finishing to medium operation	<b>-PS</b>		0.3 - 1.0 - 2.0	0.08 - 0.15 - 0.3	TPMT090202-PS		●	●	
					TPMT090204-PS		●	●	
					TPMT090208-PS		●	●	
					TPMT110202-PS		●	●	
					TPMT110204-PS		●	●	
					TPMT110208-PS		●	●	
					TPMT130302-PS		●	●	
					TPMT130308-PS		●	●	

# T9000 Series

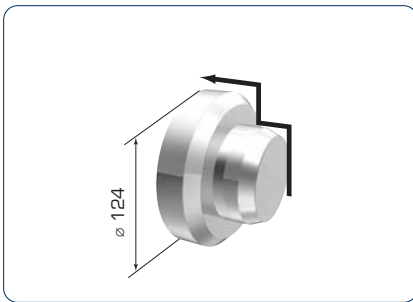
● Standard stock in Europe ○ Standard stock in Japan

Application	Chipbreaker	Shape	Cutting depth ap (mm)	Feed f (mm/rev)	Item code	Stock			
						T9005	T9015	T9025	T9035
Finishing to medium operation	<b>-PS</b>		0.3 - 1.0 - 2.0	0.08 - 0.15 - 0.3	TPMT16T304-PS		●	●	
					TPMT16T308-PS		●	●	
Medium operation	<b>-24</b>		1.0 - 1.5 - 3.0	0.08 - 0.15 - 0.3	TPMT090202-24		●	●	
					TPMT090204-24		●	●	
					TPMT110204-24		●	●	
					TPMT110208-24		●	●	
					TPMT130304-24		●	●	
					TPMT130308-24		●	●	
Medium operation	<b>-PM</b>		1.0 - 1.5 - 2.5	0.15 - 0.2 - 0.3	TPMT110204-PM		●	●	
					TPMT110208-PM		●	●	
					TPMT130304-PM		●	●	
					TPMT130308-PM		●	●	
					TPMT16T304-PM		●	●	
					TPMT16T308-PM		●	●	
Finishing to medium operation	<b>-PS</b>		0.3 - 1.0 - 2.0	0.08 - 0.15 - 0.3	VBMT110302-PS		●	●	
					VBMT110304-PS		●	●	
					VBMT110308-PS		●	●	
					VBMT160404-PS		●	●	
					VBMT160408-PS		●	●	
Medium operation	<b>-24</b>		1.0 - 1.5 - 3.0	0.08 - 0.15 - 0.3	VBMT160404-24		●	●	
					VBMT160408-24		●	●	
Finishing to medium operation	<b>-PS</b>		0.3 - 1.0 - 2.0	0.08 - 0.15 - 0.3	VCMT110302-PS		○	○	
					VCMT110304-PS		○	○	
					VCMT110308-PS		○	○	
					VCMT160404-PS		●	●	
					VCMT160408-PS		●	●	
Medium operation	<b>-24</b>		1.0 - 1.5 - 3.0	0.08 - 0.15 - 0.3	VCMT160404-24		●	●	
					VCMT160408-24		●	●	



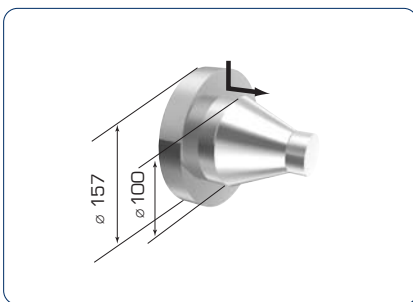
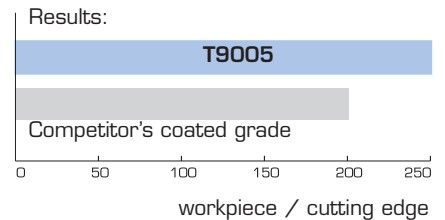
# T 9000 Series

## Practical examples



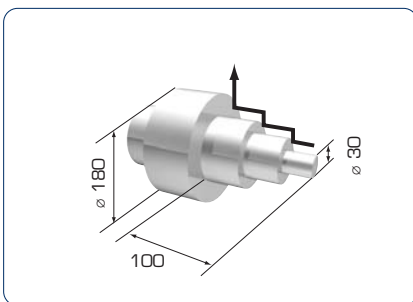
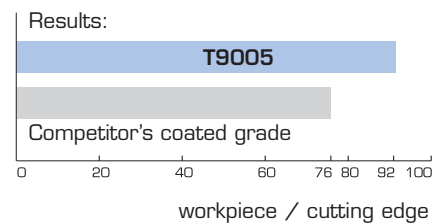
### External and face turning

Work material: St52  
 Toolholder: DWLNR2525M08  
 Insert: WNMG080412-TM  
 Grade: T 9005  
 Machine: N/C machine  
 Cutting speed:  $V_c = 200 - 500$  m/min  
 Feed:  $f = 0.35$  mm/rev  
 Cutting depth:  $a_p = 1.5$  mm  
 Coolant: Emulsion



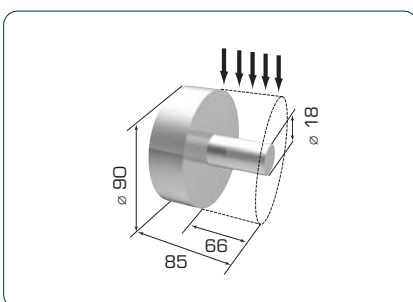
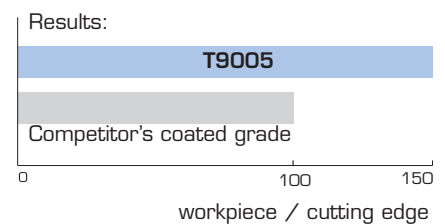
### External and face turning

Work material: 42CrMo4  
 Toolholder: MCLNL2525M12  
 Insert: CNMG120412-TM  
 Grade: T 9005  
 Machine: N/C machine  
 Cutting speed:  $V_c = 250$  m/min  
 Feed:  $f = 0.15$  mm/rev  
 Cutting depth:  $a_p = 2.0$  mm  
 Coolant: Emulsion



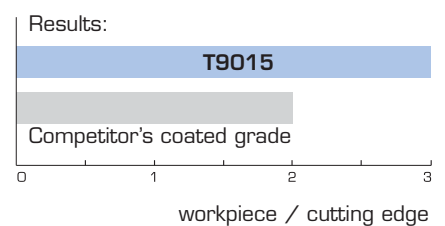
### External turning

Work material: C45E  
 Toolholder: PCLNR3225P16E  
 Insert: CNMG160612-TM  
 Grade: T 9005  
 Machine: N/C machine  
 Cutting speed:  $V_c = 150 - 200$  m/min  
 Feed:  $f = 0.3$  mm/rev  
 Cutting depth:  $a_p = 2.0$  mm  
 Coolant: Emulsion

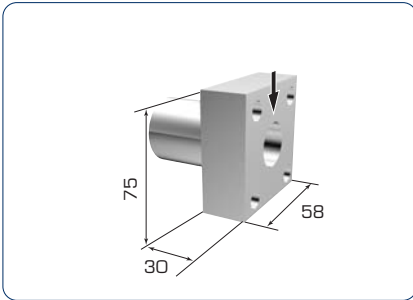


### Face turning

Work material: X40CrMoV51  
 Toolholder: ACLNR2525M12  
 Insert: CNMG120408-TM  
 Grade: T 9015  
 Machine: N/C machine  
 Cutting speed:  $V_c = 190$  m/min  
 Feed:  $f = 0.3$  mm/rev  
 Cutting depth:  $a_p = 1.5$  mm  
 Coolant: Emulsion

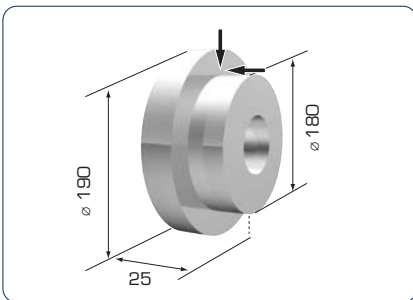
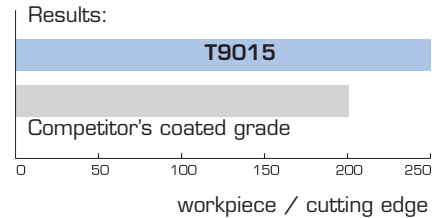


# T 9000 Series



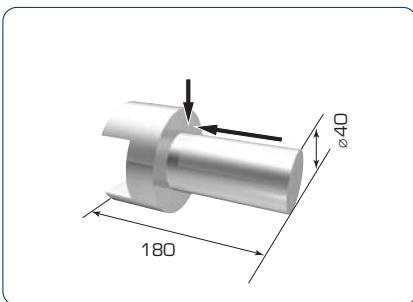
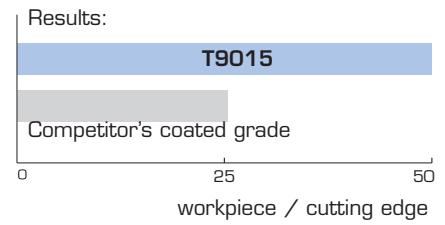
## Face turning at interrupted cut

Work material: UST42-2  
 Toolholder: DCLNR2525M12  
 Insert: CNMG120408-TM  
 Grade: T 9015  
 Machine: N/C machine  
 Cutting speed:  $V_c = 250$  m/min  
 Feed:  $f = 0.3$  mm/rev  
 Cutting depth:  $a_p = 0.2$  mm  
 Coolant: Emulsion



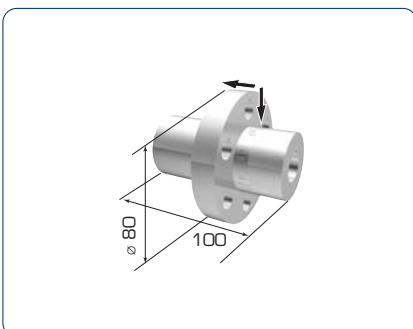
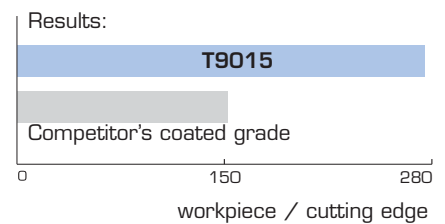
## External and face turning

Work material: C45  
 Toolholder: ACLNR2525M12  
 Insert: CNMG120408-TM  
 Grade: T 9015  
 Machine: N/C machine  
 Cutting speed:  $V_c = 230$  m/min  
 Feed:  $f = 0.24$  mm/rev  
 Cutting depth:  $a_p = 3.0$  mm  
 Coolant: Emulsion



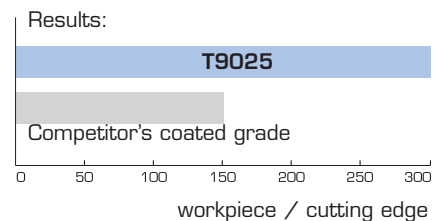
## External and face turning

Work material: C30E  
 Toolholder: PCLNL2525M4  
 Insert: CNMG120412-TM  
 Grade: T 9015  
 Machine: N/C machine  
 Cutting speed:  $V_c = 180$  m/min  
 Feed:  $f = 0.3$  mm/rev  
 Cutting depth:  $a_p = 1 - 3$  mm  
 Coolant: Emulsion

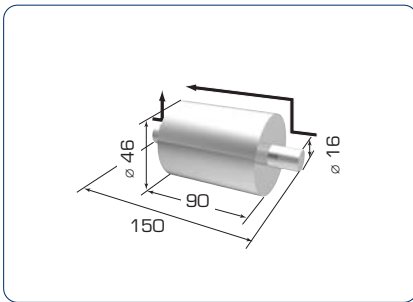


## External and face turning at interrupted cut

Work material: St37-2  
 Toolholder: PCLNR2525M4  
 Insert: CNMG120408-TM  
 Grade: T 9025  
 Machine: N/C machine  
 Cutting speed:  $V_c = 200$  m/min  
 Feed:  $f = 0.2$  mm/rev  
 Cutting depth:  $a_p = 1.2$  mm  
 Coolant: Emulsion

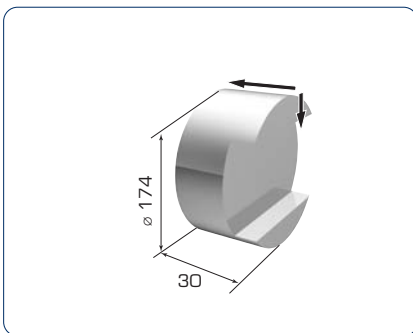
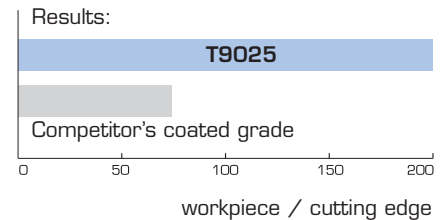


# T 9000 Series



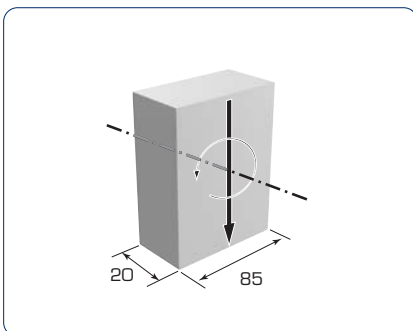
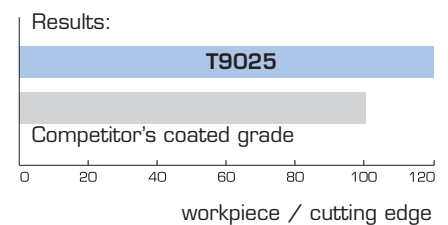
## External and face turning

Work material: 20NiCrMo2  
 Toolholder: ACLNR2525M12  
 Insert: CNMG120408-TM  
 Grade: T 9025  
 Machine: N/C machine  
 Cutting speed:  $V_c = 180$  m/min  
 Feed:  $f = 0.3$  mm/rev  
 Cutting depth:  $a_p = 2.0$  mm  
 Coolant: Emulsion



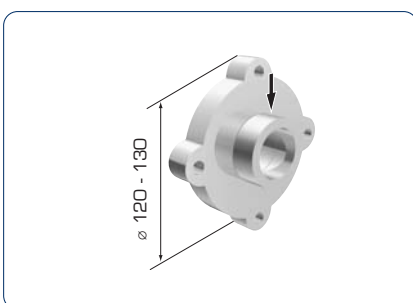
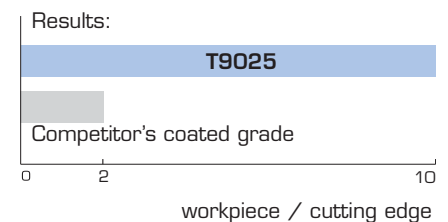
## External and face turning at interrupted cut

Work material: 20CrMo5  
 Toolholder: DWLNR2525M08  
 Insert: WNMG080412-TM  
 Grade: T 9025  
 Machine: N/C machine  
 Cutting speed:  $V_c = 200$  m/min  
 Feed:  $f = 0.3$  bis  $0.4$  mm/rev  
 Cutting depth:  $a_p = 2$  bis  $3$  mm  
 Coolant: Emulsion



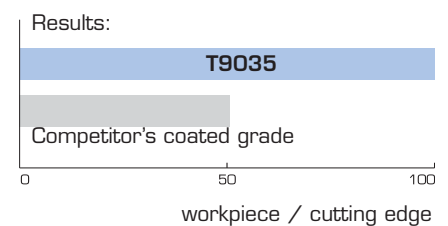
## Face turning at interrupted cut

Work material: USt42-2  
 Toolholder: PTFNR2525M3  
 Insert: TNMG160408-TM  
 Grade: T 9025  
 Machine: N/C machine  
 Cutting speed:  $V_c = 160$  m/min  
 Feed:  $f = 0.25$  mm/rev  
 Cutting depth:  $a_p = 1$  mm  
 Coolant: Without



## Face turning at interrupted cut

Work material: C35  
 Toolholder: DCLNR2525M12  
 Insert: CNMG120408-TM  
 Grade: T 9035  
 Machine: N/C machine  
 Cutting speed:  $V_c = 160$  m/min  
 Feed:  $f = 0.3$  mm/rev  
 Cutting depth:  $a_p = 1.5$  mm  
 Coolant: Emulsion



# T 9000 Series

## TUNGALOY EUROPE GMBH

Elisabeth-Selbert-Straße 3 · D - 40764 Langenfeld  
Tel. +49 (0 21 73) 9 04 20-0 · Fax +49 (0 21 73) 9 04 20-18  
e-mail: info@tungaloy.de  
www.tungaloy-eu.com

## TUNGALOY ITALIA SPA

Via E. Andolfato, 10 · I - 20126 MILANO  
Tel. +39 (02) 25 20 12-1 · Fax +39 (02) 25 20 12-65  
e-mail: info@tungaloy.it  
www.tungaloy-eu.com

## TUNGALOY FRANCE S.A.R.L.

6, Avenue des Andes · F - 91952 COURTABOEUF CEDEX  
Tel. +33 (01) 64 86 43 00 · Fax +33 (01) 69 07 78 17  
e-mail: info@tungaloy.fr  
www.tungaloy-eu.com



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